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Jamestown Aeronautical Congress

NORFOLK, VIRGINIA
April 26 to November 30
1907



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Congresses and Special Events
Jamestown Exposition

Address all correspondence to
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NEW YORK

AERONAUTICS AT JAMESTOWN



T H E L A H M C U P

A Trophy for which great aerial flights are to be made

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THE PROGRAM OF AERONAUTICS AT THE JAMESTOWN EXPOSITION

Benjamin Franklin said of the attempts to solve the problem of aerial navigation, while watching the Montgolfier brothers in 1783 sail away in their hot air balloon, "It is an infant, but it will grow." The management of the Jamestown Ter-Centennial Exposition declare that aeronautics has grown and that it deserves a house of its own. They have erected a building devoted exclusively to this subject, and by every means at their command will promote its development at the Exposition. They offer trophies to be won, free transportation of contestants and material, and free hydrogen and coal gas for balloons and dirigible air ships.

More exhibits of aeroplanes, helioplanes and flapping-wing machines will be shown than at any previous Exposition; these are solicited. Those passed upon and accepted by the Exhibit Committee will be carried both ways at the Exposition's expense, and awards will be given for the most original, practical and novel designs shown by inventors. A most complete and exhaustive record of the progress (reproduced in models) made since the first effort of the Montgolfier brothers, will afford an opportunity for those interested to acquaint themselves with the best as well as the most recent developments of this science.

Aeronautical competitions of every nature and description will be held and entries will be received until fifteen (15) days before each event. Enough entries have been received at the present time to assure these contests being an unqualified success, and all individuals taking part should make their intention known at the earliest possible date, that arrangements may be made for the satisfactory conduct of the competitions.

An Aeronautical Congress will be convened on Oct. 24th, 1907, and on succeeding days in the Auditorium on the Exposition grounds, to which scientific men, and noted experimenters from all parts of this country and abroad have been invited to attend and read papers. This Congress will be of the utmost importance and it is hoped an epoch maker in the development of aerial navigation.

The sporting side of the question will not be neglected, and the auditors will listen to the recitals of the competitors, who will represent the Aero Clubs of America and the Aero Clubs of Europe in the great International Balloon Race for the James Gordon Bennett Cup at St. Louis, on October 19th, 1907. Persons desiring to be present in the Auditorium should make application for seats beforehand.

Those desiring to take part in the competitions or to exhibit their inventions in the Aeronautical Building, should apply for an entry blank, for the rules and regulations governing the various competitions, and for a letter of instruction to the freight or express agent in their locality, and carefully carry out the following directions:

All cases, boxes or packages should be given a series and serial number. Example: Suppose you have five boxes, cases or packages and your name was John Doe and your special mark a circle, your marks and numbers would be as follows on the five boxes, etc.:



showing that there were five boxes shipped.

The bill of lading should clearly show all of these marks and numbers, and they should be stencilled on two or more sides of each case, together with the initial and particular mark, in order to ensure their arrival at their proper destination.

This is in addition to the regular shipping labels sent out by this Bureau. The weight of each case should also be stencilled on. One copy of the bill of lading should be sent to this office. This bill of lading will be one in excess of the usual number asked for from the transportation company.

An invoice of each case should be made separately, numbered, forwarded and sent to the undersigned. In addition to the competitions referred to, the Exposition authorities have arranged for a series of sensational and novel aerial exploits, and will be glad to gain knowledge of anything remarkable in this line.

It is hoped that as a result of the study of the various suggestions offered for the solution of the problem of flight by "heavier than air" machines, that such a machine will be invented and experimented with on the Exposition grounds, where ample facilities and encouragement will be offered to all inventors.

ISRAEL LUDLOW,

Superintendent Bureau of Aeronautics.



Recent Progress in Aeronautics

: : : By Carl Dienstbach : : :

The two recent World's Fairs, in St. Louis and Milan, bear testimony to the fact that the art of navigating the air is already recognized as one of the greatest triumphs of human ingenuity.

The character and "atmosphere" of the location of the Jamestown Ter-Centennial Exposition having given special prominence in the scope of that great celebration of momentous historical events to naval, military and sporting matters, it became then almost a duty to its organizers to provide for a more significant representation of modern aeronautics than prevailed at any previous occasion of the kind.

There are, moreover, recent developments which seem to make this in fact the "psychological moment" when the full and true importance of the subject might be brought hometo the public at large.

The Aero Club of America has, during its short existence, already done great things in encouraging helpful co-operation among the excellent American inventors in the field and educating the public by its first two annual shows; and also fostering the fascinating and instructive sport of modern ballooning on this side of the ocean.

Count Ferdinand von Zeppelin has just succeeded in prefecting a real "ship of the air," a gigantic, yet staunch, structure, supported by the buoyancy of hydrogen but nearly independent from the influence of the sun's radiation or any other feature of the weather, practically safe from gas losses (no internal pressure and novel material) and capable of traveling at a relative speed of 34 miles an hour against any wind that is not a hurricane, to cover the greater part of a thousand miles on one load of fuel and to transport ten passengers. Not to mention the fleet of motor driven gas bags in France, Germany and elsewhere which have done exceedingly well, though not coming up to such a standard.

Alberto Santos-Dumont has been publicly carried through the air for a distance of some 300 yards by a bird-like flying machine, with no other support than the power of its own motor, before a committee of scientists and a large crowd of spectators in Paris.

The brothers Orville and Wilbur Wright, however, have, semi-publicly, so far, brought a similar machine during three years of careful, practical trials to such a state of higher perfection that in the end they were able to steer it, near Dayton, Ohio, in calm air as well as in high winds, in flights of over 20 miles in length, and at a speed of fully 40 miles an hour before a goodly number of witnesses, including men whose word cannot be doubted.

Both of these machines belong to the "aeroplane" type—they principally consist of enormous "wings," which are, however, not flapped, but held rigid and driven ahead by motors and propellers. Being slightly tilted up in front, they develop a very considerable lifting force, but it becomes very difficult to keep them on an even keel by means of rudders, etc.

Of all these actual events the mere possibility was, until quite recently, denied—not only by the public at large, but also by certain scientists. As they have in turn led to large sums of money being offered as prizes for specified performances of flying apparatus, practical aerial navigation may now be said to be indeed fairly launched.

But the purely sporting side of the subject for which the ordinary drifting balloon is as yet generally considered the most satisfactory instrument will likewise call just now for special attention.

Through the winning of the first great Gordon-Bennett International Aeronautic Cup Race by an American this most prominent event in international aeronautics has for this year been transferred to the American air.

Nothing could serve better to awaken the true appreciation of the possibilities of aerial travel on this side of the ocean than receiving as the guests of the Nation the great masters of an art which is so highly perfected in Europe. They will bring along at the same time a broader view of future developments, and their presence at the Jamestown Exposition may lend increased significance to what is expected to happen above old Hampton Roads, that starting point par excellence for new epochs.

CARL DIENSTBACH.



AERONAUTICAL COMPETITIONS, JAMESTOWN EXPOSITION

- No. 1. Special Race limited to members representing recognized Aero Clubs of North America, for Club championship, May 4th.
- No. 2. Dirigible balloon competition, June 1st.
- No. 3. Competiton of balloons for distance, June 15th.
- No. 4. Competition of balloons for duration, Aug. 3d.
- No. 5. Competition of balloons for objective point, Sept. 7th.
- No. 6. Competition of balloons for altitude, Nov. 16th.
- No. 7. Competition of balloons in pursuit of pilot balloon, Aug. 17th.
- No. 8. Competition of carrier pigeons. Flight from Aeronautical Concourse, Exposition Grounds, May 18th.
- No. 9. Simultaneous release of large number of small balloons carrying messages, May 18th.
- No. 10. Flying devices heavier than air, with motor and operator, Sept. 14th.
- No. 11. Flying machine models with motor, Aug. 24th.
- No. 12. Flying machine models without motor, and carrying operator, Sept. 14th.
- No. 13. Kites for altitudes, Nov. 2d.
- No. 14. Kites for steepest angle of flight, Nov. 9th.
- No. 15. Kites carrying operators, Nov. 16th.
- No. 16. Registering balloons, July 13th.
- No. 17. Competition of balloons and automobiles. (Date to be coincident with the arrival of the Automobile Tour.)
- No. 18. Competition of dirigible balloons and automobiles, May 25th.
- No. 19. Competitions of photographs taken from balloons or kites.
- No. 20. Competition of photographs taken of balloons, aeroplanes or other aeronautical objects.
- No. 21. Competition of photographs of meteorological phenomena. (Exhibits for Nos. 19, 20 and 21 to be ready April 26th, and continuing on exhibition throughout the Exposition.)
- No. 22. Signalling competitions with balloons or kites, Oct. 12th.
- No. 23. Hot air balloon competition, Oct. 5th.
- No. 24. Dropping (harmless) shells nearest selected objective point or target.
- No. 25. Competition for longest trip, open during Exposition.

AERONAUTIC COMMITTEE OF THE JAMESTOWN EXPOSITION

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REPRESENTATIVES FROM ABROAD.

To be appointed by the foreign Aero Clubs.



The Aero Club of America has held two exhibitions of aeronautic apparatus and the list of exhibits follows:

JANUARY, 1906

Airships	Leo Stevens, No. 3 Santos-Dumont, No. 9 Capt. Baldwin's "California Arrow" Roy Knabenshue Carl E. Myers, "Tuxedo"
Balloons	Stevens' "Aero Club No. 1" Parachute Anchors, Ballast Bags, Baskets, etc. } Leo Stevens Signal Balloon Maurice Mallet (Paris) Louis Goddard August Riedinger (Germany) Carl E. Myers, Basket
Flying Machines	Prof. Langley's Steam Model Prof. Langley's Gasolene Model, $\frac{1}{4}$ size O. Chanute, Hargrave, Lilienthal, 15 Exhibits A. M. Herring, Gasolene Model and — Exhibits Emile Berliner, 2 Models Wilbur R. Kimball, 2 Models John Brisben Walker, Lilienthal Gliding Machine Dr. Alexander Graham Bell, Man-carrying Kite, Tetrahedral Kites Israel Ludlow, Man-carrying Kite, Models U. S. Patent Office Models W. H. Horstmann Co., 357 Broadway, Eddy Kites
Scientific Instruments	U. S. Weather Bureau, Automatic Recording Apparatus A. F. Zahm, Aero-Dynamic Apparatus for Measuring Head Resistance of different forms and Skin Friction Keuffel & Esser Co. DeForrest Wireless Signalling Prof. David Todd Prof. A. L. Rotch (Blue Hill Observatory) Carl E. Myers
Motors, Etc.	Hendee Mfg. Co., Springfield, Mass., 2-cylinder A. R. Mosler, Light Commutators and Coils Duryea Power Co. Curtis Mfg. Co. C. F. Splitdorf Co.
Pictures	William J. Hammer Sir Hiram Maxim U. S. War Department U. S. Weather Bureau Smithsonian Institution, Washington Cortlandt F. Bishop Emile Berliner Geo. G. Bain Count Zeppelin's Newest Flugschiff Wright Brothers' Flights Carl E. Myers

AERO CLUB OF AMERICA—Ascensions made in the United States by Members in 1906

	DATE 1906	BALLOON	CAP'Y CU. MTRS	PILOT	COMPANIONS	START	FINISH	KILOMTR STR'G'T LINE	REMARKS
1	Feb. 11	Alouette	350	Charles Levee	.....	West Point, N. Y.	Hurley, N. Y.	60	
2	Feb. 22	Alouette	350	Charles Levee	.....	Hillburn, N. Y.	Ramsey, N. J.	8	Gas very poor
3	Mar. 31	Ludios	530	Count Henri de la Vaulx	Charles Levee	West Point, N. Y.	Peekskill, N. Y.	11	Strong wind
4	Apr. 2	Orient	1000	Count Henri de la Vaulx	Charles Levee & Dr. Julian P. Thomas	138th St. New York	Glendale, L. I.	11	
5	Apr. 3	.....	600	Paul Nocquet	.....	138th St. New York	Jones Beach, L. I.	45	Night trip. Balloon was blown out to sea, struck a counter current and returned about over the same path. Mr. Nocquet lost his life, after landing, through exhaustion in his efforts to reach the mainland of Long Island.
6	Apr. 11	Orient	1000	Charles Levee	Dr. and Mrs. Julian P. Thomas	Pittsfield, Mass.	Somers, Conn.	90	
7	Apr. 18	Centaure	1630	Count Henride la Vaulx	Augustus Post, A. M. Herring and Alvan R. Hawley	Pittsfield, Mass.	North Colebrook Ct.	52	A sudden drop of 1524 metres in 5 minutes was made.
8	Apr. 28	Centaure	1630	Count Henri de la Vaulx	Capt Homer W. Hedge and Charles Jerome Edwards	Pittsfield, Mass.	Waterville, Conn.	97	
9	May 12	Initial	1000	Charles Levee	Alfred N. Chandler and Henry S. Gratz	Point Breeze, Phila., Pa.	So. Amhoy, N. Y.	108	Very strong wind—68 kilometres per hour
10	May 15	You & I	623	Aeronaut Leo Stevens	Tracy Tisdell	138th St. New York	Alpine, N. J.	16	Passing over Hudson River, the gas cooled and halloon struck the side of the Palisades and was torn. Aeronauts landed in the Hudson River.
11	May 21	Nirvana	1714	Charles Levee	Dr. Julian P. Thomas	138th St. New York	Peekskill, N. Y.	58	
12	May 26	Initial	1000	Charles Levee	Frederic C. Unger and Mr. Tuttle	Point Breeze, Phila., Pa.	Newtown, Pa.	42	High wind
13	June 17	Nirvana	1714	Charles Levee	Dr. Julian P. Thomas	138th St. New York	Butternut, N. Y.	241	Night trip. Passed through severe electric storm. Spent part of night in a tree and resumed journey with daylight. 15 hours in the air
14	June 25	Sky Lark	510	Aeronaut Leo Stevens	Maj. C. J. S. Miller and Charles Levee	Franklin, Pa.	Woodhill, Pa.	50	Hydrogen gas. Ascended 5900 metres
15	June 18	Uncle Sam	400	A. Roy Knabenshue	Herbert A. Meldrum	Buffalo, N. Y.	Silverdale, Can.	50	Hydrogen gas
16	July 8	Uncle Sam	400	A. Roy Knabenshue	Mrs. Knabenshue	159th St. New York	Flushing, L. I.	10	Hydrogen gas
17	July 11	Nirvana	1714	Dr. Julian P. Thomas	A. Roy Knabenshue	138th St. New York	Flatbush, L. I.	18	Experimented with sea anchor
18	July 16	Centaure	1630	Aeronaut Leo Stevens	Charles Levee and James H. Hare	Clifton, S. I. N. Y.	In Flushing Bay Opp. Classon Pt.	24	Experimented with sea anchor which dragged balloon near water and with the poor gas used, halloon finally landed on the deck of a small sailing vessel
19	July 19	Nirvana	1714	Dr. Julian P. Thomas	Mrs. Julian P. Thomas & A. Roy Knabenshue	138th St. New York	Woodcliff, N. J.	26	
20	July 22	.....	198	A. Roy Knabenshue	.....	159th St. New York	159th St. N. Y.	.....	Dirigible. Strong wind prevented long trip Only 15 minutes in air. Hydrogen gas used
21	July 28	America	400	Charles Walsh	.....	138th St. New York	E. Norwalk Conn.	58	
22	Aug. 5	Nirvana	1714	Dr. Julian P. Thomas	A. Roy Knabenshue	138th St. New York	Brantrock, Mass.	317	Night trip in fog. Landing made at 6 a. m. and aeronauts had breakfast. Ascended again at 6:30, making final landing at 11:30 a. m. 14½ hours in air. Heavy fog all night Half of entire distance over the waters of L. I. Sound and Narragansett Bay.
23	Aug. 10	City of Franklin	637	Aeronaut Leo Stevens	Maj. C. J. S. Miller	Franklin, Pa.	Franklin, Pa.	.....	Dirigible. Trial trip. 30 minutes in air Trouhle with motor. 4.83 kilometers traveled.
24	Aug. 11	City of Franklin	637	Aeronaut Leo Stevens	Mrs. C. J. S. Miller	Franklin, Pa.	Franklin, Pa.	.....	Dirigible. Second trip. Motor stopped at altitude of 300 metres. In air 45 minutes. 4.02 kilometres traveled.
25	Aug. 11	City of Franklin	637	Aeronaut Leo Stevens	.....	Franklin, Pa.	Near Oil City Pa.	.....	Dirigible. Third trip. Made at night. In air 2 hours. 12.07 kilometres traveled.
26	Aug. 26	Nirvana	1714	Dr. Julian P. Thomas	J. D. Thomas	138th New York	Oakland, N. Y.	103	Made first landing at Beemerville, N. J. and spent night. Resumed journey in the morning.
27	Oct. 22	Centaure	1630	Charles Walsh	Maj. Samuel Reher, U.S. A., and Capt. Chas. de F. Chandler, U.S.A.	Pittsfield, Mass.	Bennington, Vt.	68	
28	Oct. 22	Orient	1000	Aeronaut Leo Stevens	Capt. Homer W. Hedge	Pittsfield, Mass.	Jamacia, Vt.	92	
29	Oct. 31	Nirvana	1714	Dr. Julian P. Thomas	.....	Augusta, Ga.	Augusta, Ga.	11	Ascent made without basket and with hut one bag of hallast. Large hole in envelope when start was made. Traveled short distance only. Strong wind
30	Nov. 2	Eagle	510	Aeronaut Leo Stevens	.....	Pittsfield, Mass.	Colbrooke, Conn.	52	Night trip
31	Nov. 3	Centaure	1630	Aeronaut Leo Stevens	Lieut. S. M. Butler and Capt. Homer W. Hedge	Pittsfield, Mass.	Short Beach, Ct.	137	Most of trip after dark
32	Nov. 9	Orient	1000	J. C. McCoy	Alan R. Hawley	Pittsfield, Mass.	No. Adams, Mass.	29	Aero-Auto Cup won by Cortlandt Field Bishop
33	Nov. 25	Initial	1000	Henry S. Gratz	Samuel J. Ottinger	Point Breeze, Phila. Pa.	Pleasantville, N.J.	97	Passed over Automobile Races at Pt. Breeze

NOTE:—Many flights have been made abroad by club members, of which no account has been taken here; among them, Messrs, Cortlandt Field Bishop, Charles Walsh, J. C. McCoy, William J. Hammer, William Henry Hall, Lieut. Frank P. Lahm, Frank S. Lahm, A. Lawrence Rotch, Newbold Le Roy Edgar, Alberto Santos Dumont, Count Henri de la Vaulx; In qualifying for pilot's license from the Aero Club of France, Mr. McCoy made 10 trips, 8 with Lieutenant Lahm and 2 alone.

Seven members have made free flights in the United States in dirigibles and aeroplanes—Messrs. Wright Brothers, Stevens, G. L. Bumhaugh, A. Roy Knabenshue, Thomas S. Baldwin, Major C. J. S. Miller, Records of all of these flights have not yet been compiled.

RESUME:—

Ascensions of Record made hy members in the United States	33
Cubic metres of coal gas consumed	30,511
Cubic metres of hydrogen gas consumed	3,419
Kilometres traveled (straight line) in halloons (not dirigibles)	1,981
Passengers carried, exclusive of pilots	37

- Literature** U. S. Patent Office, Complete Patents
 Smithsonian Institute
 O. Chanute
 Periodicals and Books from France and Germany
- Propellers** Carl E. Myers, Propeller of his "Sky Cycle"
- Accessories** John Boyle, Model Balloon House and Supplies
 J. Deltour, Bamboo
 W. A. Augur, 23 Fulton Street, Net and Twine
 Shelby Tube Co., Light Tubing

DECEMBER, 1906

- Airships** Aeronaut Leo Stevens, 282 Ninth Ave., New York—"Stevens IV."
 Edward C. Boyce, 302 Broadway, New York—"Santos-Dumont No. 9"
 Capt. Thos. S. Baldwin, Hotel Churchill, 14th St. and Broadway, New York—"California Arrow"
 Dr. Julian P. Thomas, 172 West 72d St., New York
 Miss E. L. Todd, 131 West 23d Street, New York—model in motion
- Club Balloons** Orient and Centaure
- Private Balloons** Dr. Julian P. Thomas, 172 West 72d St., New York—"Nirvana"
 Alfred N. Chandler, 111 Broadway, New York—"Initial"
 Lieut. Frank P. Lahm, 2 Rue Gambetta, Saumur, France—"United States"
 A. Leo Stevens, 282 Ninth Ave., New York—"You & I," "Sky Lark," "Grand Air," Car of "Klondike" balloon, 90,000 cubic feet capacity
 August Riedinger, Augsburg, Germany—Drachen balloon and models
 Hon. Chas. S. Rolls, London, England—small car and paraphernalia made by Short Bros., London
- Flying Machines** G. Curtis Gillespie, 7 Warren St., New York—full-sized machine; large model; the Amos Drew flapping machine, full size
 A. Roy Knabenshue, 133 Melrose Ave., Toledo, Ohio—part of aeroplane framework and motor
 Israel Ludlow, 110 West 84th Street, New York—models
 Frank Barnett, 3023 E. 20th St., Kansas City, Mo.—models and books
 A. W. Barnard, Ridgewood, N. J.—Models and photos
 Henry Rodemeyer, 185 Terrace Ave., Jersey City Heights, N. J.—flapping wing machine
 Miss E. L. Todd, 131 West 23d St., New York—large model Aeroplane with electric motor
 Wilbur R. Kimball, 140 West 91st St., New York—models and helicopteres
 Carl Hartman, Winfield Junction, N. Y.—models
 Gustave Whitehead, Bridgeport, Conn.—motor of flapping wing machine
 William A. Eddy, 88 W. 36th St., Bayonne, N. J.—aeroplane model
 Stuart Reid, 144 W. 141st St., New York—model
 Carl Dienstbach, 9 E. 119th St., New York—full sized helicoptere
 Dr. Julian P. Thomas, 172 W. 72d St., New York

**Scientific
Instruments**

J. C. McCoy, Waldorf-Astoria, New York
Ernest H. DuVivier, 14 Church St., New York—Jules
Richard instruments
Arden & Co., 2024 Valentine Ave., New York—wire-
less apparatus

**Airships
Machinery
Motors**

Harry E. Dey, 309 Arlington Ave., Jersey City, N. J.—
86 lb. $7\frac{1}{2}$ H.P. motor
Gustave Whitehead, Bridgeport, Conn.—light motors
Wright Brothers, Dayton, Ohio—new model motor
for their aeroplane
A. Leo Stevens, 282 Ninth Ave., New York—4 cylin-
der 40 H.P. air cooled motor, 240 lbs.
G. H. Curtiss Mfg. Co., Hammondsport, N. Y.—3
H.P. single cylinder motor; 7 H.P. double cylinder;
15 H.P. 4 cylinder; 30 H.P. 8 cylinder motors; air
cooled
D. Hoffman, 1239 Madison Ave., New York—alumi-
num castings
Ovington Motor Co., 2384 Broadway, New York—4
cylinder 56 lb. engine
Carl G. Fisher, 330 N. Illinois St., Indianapolis, Ind.—
12 H.P. 4 cylinder air cooled motor, 87 lbs.
J. W. Tygard, 49 Warren St., New York—3 airship
engines
Thomas G. Washburn, Tremont Bldg., Boston, Mass.
—new 4 cylinder air cooled motor
Smithsonian Institution, Washington, D. C.—engine
of Langley machine

**Photographs,
Literature,
&c.**

Aero Club of America—moving pictures Gordon-
Bennett Aeronautic Cup Race; Santos-Dumont air-
ship; Santos-Dumont new aeroplane; Archdeacon
aeroplane; Lebaudy airship; Ludlow aeroplane
Lebaudy airship; Ludlow aeroplane
George Grantham Bain, Park Row Bldg., New York
—rare photographs
Edward Durant, 115 East 26th St., New York
William J. Hammer, 153 West 46th St., New York—
aeronautical pictures
John Franklin Cameron, 530 Clinton Ave., Brooklyn,
N. Y.
Prof. A. Lawrence Rotch, Blue Hill Observatory, Hyde
Park, Mass.—map of routes taken by experimental
balloons sent up during Saint Louis Exposition
James H. Hare (Collier's Weekly), 416 East 13th
St., New York—photographs of lower Manhattan
Island taken from a balloon
Lieut. Frank P. Lahm, 2 Rue Gambetta, Saumur,
France
A. L. Helwig, 1 Rue de Laborde, Paris, France
Aero Club of America
Joseph A. Blondin, 419 W. 10th St., Kansas City, Mo.

Kites

Henry Rodemeyer, 185 Terrace Ave., Jersey City
Heights, N. J.
Dr. Alexander Graham Bell, 1331 Connecticut Ave.,
Washington, D. C.
William A. Eddy, 88 West 36th St., Bayonne, N. J.
E. I. Horsman Co., 365 Broadway, New York

Aerial Propellers	Carl Hartman, Winfield Junction, N. Y. Thomas G. Washburn, Tremont Bldg., Boston, Mass. Alexander V. Wilson, Bar Harbor, Me. Dr. Julian P. Thomas, 172 W. 72d St., New York
Aero Wagons and Cycles	Prof. W. H. Pickering, Harvard University, Cambridge, Mass. Gustave Whitehead, 241 Pine St., Bridgeport, Conn.
Hydrogen Gas Apparatus	Dr. Julian P. Thomas, 172 West 72d St., New York— model plant
Cups and Trophies	Gordon-Bennett International Aeronautic Cup Aero-Auto Cup offered by Alan R. Hawley and won by Cortlandt F. Bishop Design for Lahm Cup

THE LAHM AERONAUTIC CUP.

The Aero Club of America offers the Lahm Cup, of the value of about \$1200, open to *aerostats, aeronauts and aeronefs, for the longest continuous trip made in the United States. The first winner must exceed 648 kilometres (402.64 miles). Due notice of a proposed attempt to win this cup must be given to the Contest Committee by telegraph or registered letter. Distance will be measured in a straight line from point of ascent to point of descent. Place of descent must be properly certified to by witnesses. A set of rules and regulations is in course of preparation.

*Aerostats—balloons; aeronauts—dirigible balloons; aeronefs—all other aerial navigators.

AERONAUTIC PRIZES OFFERED TO DATE.

LE MATIN, PARIS: \$50,000, Paris to London in 1908; 217 miles in less than 24 hours. Open to dirigible balloons, or heavier than air machines.

DAILY MAIL, LONDON: \$50,000, London to Manchester; 161 miles. Open only to heavier than air machines owned by members of a recognized aero club.

THE CAR, LONDON: (1) \$2,500 (trophy) annually to aeronaut who flies longest distance in United Kingdom without touching ground in a self-propelled, heavier-than-air machine. (2) \$25 a mile for every mile successfully accomplished in the Daily Mail competition by the machine which completes the longest distance without touching ground, provided at least 25 miles is covered.

ADAMS MANUFACTURING CO., LONDON: \$10,000 for any aeroplane that wins the Daily Mail flight, provided it is entirely manufactured in Great Britain, or its dependencies.

AUTOCAR, LONDON: \$2,500 in same connection, provided engine used in the successful aeroplane is made by a British motor car manufacturer.

DAILY GRAPHIC, LONDON: \$5,000 to the inventor who produces a heavier-than-air machine which will carry one or more persons through the air from one point to another, not less than a mile distant.

J. NORTON GRIFFITHS: Challenge Cup to winner of Daily Mail race.

BROOKLAND AUTOMOBILE RACING CLUB: \$12,500 to the aeronaut who is successful in flying around the Weybridge track, without touching ground from start to finish, at a height of 30 to 50 feet from the ground.

RUINART PERE & FILS: \$2,500 to the first aeroplane to fly from French shore to English shore or vice versa. From Cape Gris-Nez to Dover, is about 19 miles.

SOCIÉTÉ DES BAINS DE MER D'OSTENDE: \$40,000 to any flying machine or dirigible to go from Ostend to Paris in 24 hours; distance 186 miles.

HENRY DEUTSCH, PARIS: \$14,000 (trophy) to any flying machine or dirigible to cover course as follows: St. Germain, Senlis, Meaux, Melun & St. Germain; 124 miles. Open only to members of Federation Aéronautique Internationale. Can stop and fill up with fuel.

DEUTSCH-ARCHDEACON PARIS: \$10,000 to heavier-than-air machines who accomplish closed circuit of .62 miles without touching ground.

DAILY MAIL, LONDON: \$1,250 for three best models of heavier-than-air machines exhibited at Exhibition, London, April 13, 1907.

BARNUM & BAILEY: \$10,000 for the purchase of a heavier-than-air machine to be used daily.

N. PEPIN: \$200 for heavier-than-air machines, conditions to be issued later.

FRANK HEDGES BUTLER, LONDON: Challenge Cup for the longest distance covered by aeroplanes or balloons starting from London on a given date.

HOWARD DE WALDEN PRIZE: Offered for a type heavier than air.

SIR DAVID SALOMONS CUP: For a heavier-than-air type.

GORDON-BENNETT INTERNATIONAL AERONAUTIC CUP: International contest for balloons open to Clubs only, belonging to the Federation.

LAHM CUP: Offered by the Aero Club of America to members of any aero club in the world for longest distance covered by balloons in the United States.

NEW AERONAUTIC HANDBOOK.

The Aero Club of America is about to publish a comprehensive volume, giving the status of aeronautics in the United States at the close of the year 1906. The subjects thus far secured follow:

"The Relation of Weight, Speed and Power of Flyers," by Wilbur and Orville Wright.

"Statement of Witnesses and Corroboration of the Flight by Aeroplane of the Wright Brothers," by Howard M. Myers, Henry and Charles Webbert.

"Aerial High Speed," by Prof. David P. Todd, Director of the Amherst College Observatory.

"Aeronautics," by Carl Dienstbach.

"Early Aeronautical and Meteorological Investigations," by Prof. T. S. C. Lowe, Chief of the Aeronautic Corps during the Civil War.

"Experiences of Traveling in a Balloon Over Mountains and Rivers and Making a Safe Landing," by Augustus Post.

"Notes of Progress in the Construction of an Aerodrome," by Dr. Alexander Graham Bell.

"A Discussion of Dr. Bell's Paper," by Charles M. Manly and A. F. Zahm.

"A Personal Account of the Gordon-Bennett Cup Race in 1906," by Lieut. Frank P. Lahm.

"Flying Machines," by Octave Chanute.

"Experiments With Kite-Sustained Aeroplanes," by William A. Eddy.

"How to Fly as a Bird," by John P. Holland.

"Aerial Propellers," by Prof. W. H. Pickering, of Harvard University.

"Exploring the Upper Air," by A. Lawrence Rotch, Director of the U. S. Observatory at Blue Hill, Mass.

"Use of Kites and Balloons in the U. S. Weather Bureau," by Oliver L. Fassig, Ph. D., Research Director of the U. S. Weather Bureau.

"Air Resistance," by Prof. Albert Francis Zahm, of the Catholic University of America.

"Experimental Flights With a Man-Carrying Aeroplane," by Israel Ludlow.

"Ballooning," by A. Leo Stevens.

"The Aero Club of America," by Cortlandt Field Bishop.

On account of the Gordon-Bennett Aeronautic Cup Race being held in the United States in 1907 under the auspices of the Aero Club of America, there will be many distinguished aeronautic enthusiasts from abroad in this country and it being quite probable that they will assemble at Jamestown, we think it a very suitable occasion to have a meeting or gathering on a certain date to discuss the subject of aerial navigation.

EXHIBITS AT JAMESTOWN.

Materials for the construction of balloons, dirigibles and flying machines.

Passenger balloons.

Captive balloons.

Dirigible balloons.

Baskets, nets, guide ropes, anchors, sand bags, valves and paraphernalia.

Flying machines (heavier than air)—Aeroplanes, helioplanes, flapping-wing machines, man-power machines, etc.

Motors for aeronautic purposes.

Propellers, rudders, guiding devices, etc.

Gas-producing apparatus for hydrogen and coal gas.

Meteorological instruments—thermometers, hygrometers, barometers, statoscopes, etc.

Pilot balloons.

Registering balloons and special instruments.

Parachutes.

Carrier pigeons, baskets, methods of attaching messages, etc.

Kites—man-carrying, Malay, tailless, Hargrave, Blue Hill, Tetrahedral, etc.

Megaphones, speaking trumpets, etc.

Signal flags, signal lights, electric, pyrotechnic, etc.

Photographing apparatus for taking photographs from balloons, kites, pilot balloons, etc.

Signalling outfits for balloon signalling—heliographs, heliostats, wireless telegraph.

Wagons, cycles, sleighs, boats propelled by aerial propellers.

Aeronautical models and toys.

Aeronautical pictures.

Aeronautical maps.

Telephone equipment for military observations.

Pictures, plans and models of aerodromes, balloon sheds, etc.

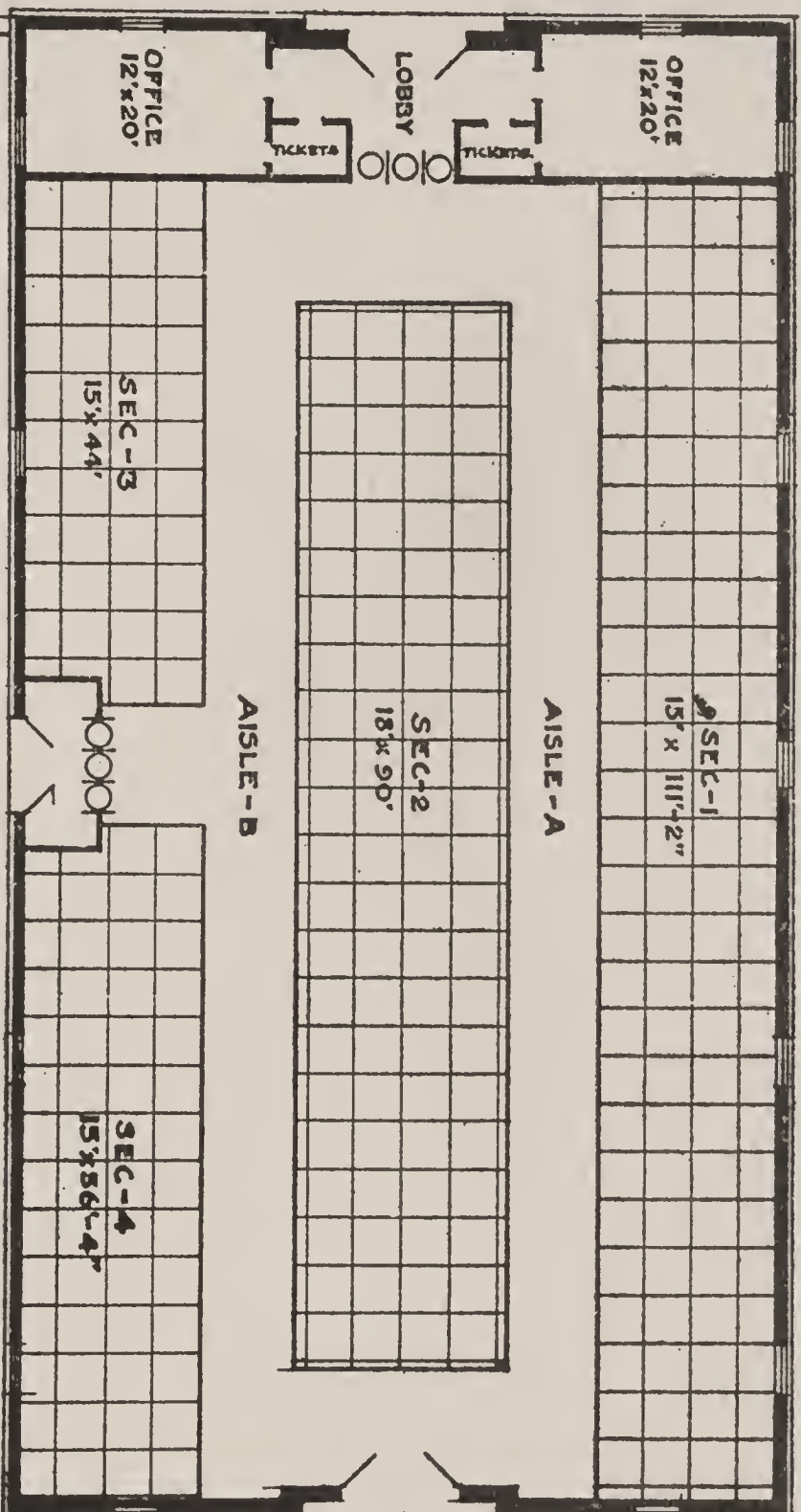
Rules for competition are in course of preparation and will be sent on request.



SKETCH FOR
AERONAUTICAL EXHIBIT BUILDING
AT
JAMESTOWN EXPOSITION.

BOARD OF DESIGN ARCHITECTS

SCENIC RAILWAY.

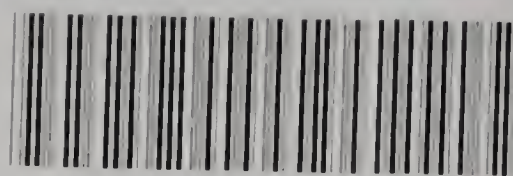


NOTE:
BUILDING 60 FT WIDE 125 FT LONG.
TOTAL AREA 6125 SQ. FT.
CROSS LINES 4 FT APART.

SKETCH FOR
AERONAUTICAL EXHIBIT BUILDING
AT
JAMESTOWN EXPOSITION.



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